

A minor change to the specification has been made to correct a typographical error.

Claims 1, 5, 9 and 13 have been amended to employ more idiomatic English, clarify the invention and thereby better define the invention over the art, as well as to correct minor clerical errors appearing therein. No new matter has been entered.

Pursuant to 37 CFR 1.121, marked copies of the amended specification paragraph and amended claims showing the changes made therein accompany this Amendment.

Turning now to the art rejections, and considering first the rejection of claim 1 as anticipated by Applicants' admitted art, claim 1 requires "supplying respectively independently generated reference voltages to each of a plurality of gamma compensating circuits." In Applicants' admitted prior art, the same reference voltages are supplied to each of the gamma compensating circuits, rather than supplying respectively independently generated reference voltages to the gamma compensating circuits, as required by claim 1. Therefore, Applicants' prior art cannot be said to anticipate claim 1.

Turning now to the rejection of claims 3-5, 7-9, 11-13, 15 and 16 as obvious over Applicants' admitted art in view of Kaburagi et al., U.S. Patent No. 6,160,532, claim 5 requires "supplying respectively independently generated reference voltages to each of a plurality of gamma compensating circuits." Neither Applicants' admitted art nor Kaburagi et al. teaches supplying respectively independently generated reference voltages to each of a plurality of gamma compensating circuits. Therefore, no combination of Applicants' admitted prior art and Kaburagi et al. could be said to achieve or render obvious claim 5. Regarding claims 9 and 13, these claims have been amended to clarify that the first gamma compensating circuit is for

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applying a gamma compensation only to a red video signal, the second gamma compensating circuit is for applying a gamma compensation only to a green video signal, and the third gamma compensating circuit is for applying a gamma compensation only to a blue video signal. Further, claims 9 and 13 have both been amended to clarify that the reference voltage generating circuit supplies respectively independently generated reference voltages to each of the gamma compensating circuits. Neither Applicants' admitted art nor Kaburagi et al. teaches the foregoing limitations. To the contrary, as noted above, Applicants' admitted art teaches supplying a single set of reference voltages to each of the gamma compensating circuits. Moreover, Kaburagi et al. does not teach three separate gamma compensating circuits, one for each color signal, but rather a primary and secondary gamma correction circuit, each of which handles gamma correction for red, green and blue video signals, as illustrated, e.g., in Figure 7 of Kaburagi et al. Therefore, no combination of Applicants' admitted prior art and Kaburagi et al. could be said to achieve or render obvious claims 9 and 13.

Claims 3, 7, 11 and 15 are similarly patentable for the reasons adduced above with respect to claims 1, 5, 9 and 13, respectively, from which they depend, as well as for their own additional limitations. Likewise, claims 4, 8, 12 and 16 are similarly patentable for the reasons adduced above with respect to claims 3, 7, 11 and 15, respectively, from which they depend, as well as for their own additional limitations.

It is noted that the Examiner has not examined the non-elected species or the claims reading thereon. It is requested that non-examined claims be maintained for possible rejoinder and/or for the filing a Divisional Application.

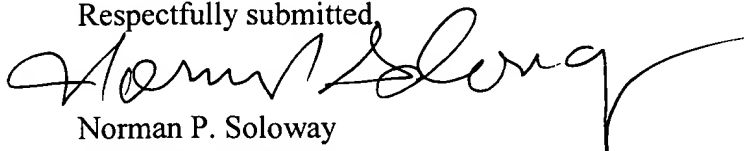
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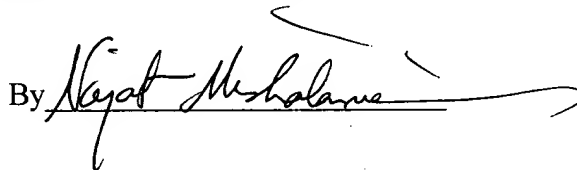
Respectfully submitted,



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**CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Assistant Commissioner of Patents, Washington, D.C. 20231 on December 26, 2002, at Tucson, Arizona.

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**MARKED SPECIFICATION PARAGRAPH SHOWING CHANGE MADE**

**Paragraph beginning at page 26, line 3:**

Gamma compensating circuit 21<sub>1</sub> to gamma compensating circuit 21<sub>3</sub>, based on a reference voltage  $V_{LR}$ , a reference voltage  $V_{MR}$ , a reference voltage  $V_{HR}$ , a reference voltage  $V_{LG}$ , a reference voltage  $V_{MG}$ , a reference voltage  $V_{HG}$ , a reference voltage  $V_{LB}$ , a reference voltage  $V_{MB}$  and a reference voltage  $V_{HB}$  supplied from the reference voltage generating circuit 22, apply gamma compensation to the video red signal  $S_{RC}$ , the video green signal  $S_{GC}$  and the video blue signal  $S_{BC}$  independently in order to give gradients to them and then output the video red signal  $S_{RG}$ , the video green signal  $S_{GG}$  and the video blue signal  $S_{BG}$ . In addition, it is assumed that the gamma compensation in the first embodiment includes a gamma compensation (hereunder, called a first gamma compensation) for giving a luminance characteristic of a reproduced image for a luminance of an input image voluntarily and a gamma compensation (hereunder, called a second gamma compensation) suitable to each of a red V-T characteristic, a green V-T characteristic and a blue V-T characteristic in the color liquid crystal display 1.

**MARKED CLAIMS SHOWING CHANGES MADE**

1. (Amended) A driving method for a color liquid crystal display comprising:  
a step of applying gamma compensations making suitable to a red transmittance characteristic, a green transmittance characteristic and a blue transmittance characteristic for an applied voltage of said color liquid crystal display to a red video [red] signal, a green video [green] signal and a blue video [blue] signal, by supplying respectively independently generated reference voltages to each of a plurality of gamma compensating circuits, in order to obtain a compensated red video [red] signal, a compensated green video [green] signal and a compensated blue video signal; and  
a step of driving said color liquid crystal display based on said compensated red video [red] signal, said compensated green video [green] signal and said compensated blue video signal.

5. (Amended) A driving method for a color liquid crystal display comprising:  
a step of applying gamma compensations, each of said gamma compensations including a first gamma compensation of voluntarily giving a luminance characteristic of a reproduced image to an input image luminance and a second gamma compensation of making suitable to a red transmittance characteristic, a green transmittance characteristic and a blue transmittance characteristic for an applied voltage of said color liquid crystal display to a red video [red] signal, a green video [green] signal and a blue video [blue] signal by supplying respectively independently generated reference voltages to each of a plurality of gamma compensating circuits, in order to obtain a compensated red video [red] signal, a compensated green video [green] signal and a compensated blue video

signal; and

a step of driving said color liquid crystal display based on said compensated red video [red] signal, said compensated green video [green] signal and said compensated blue video signal.

9. (Amended) A driving circuit for a color liquid crystal display comprising:

a first gamma compensating circuit for applying a gamma compensation [of compensating] only to a red video [red] signal so as to be suitable [to] only for a red transmittance characteristic for an applied voltage in said color liquid crystal display and for outputting only a compensated red video [red] signal;

a second gamma compensating circuit for applying a gamma compensation [of compensating] only to a green video [green] signal so as to be suitable [to] only for a green transmittance characteristic for said applied voltage in said color liquid crystal display and for outputting only a compensated green video [green] signal;

a third gamma compensating circuit for applying a gamma compensation [of compensating] only to a blue video [blue] signal so as to be suitable [to] only for a blue transmittance characteristic for said applied voltage of said color liquid crystal display and for outputting only a compensated blue video [blue] signal;

a reference voltage generating circuit for supplying respectively independently generated reference voltages to said first gamma compensating circuit, said second gamma compensating circuit and said third gamma compensating circuit; and

a data electrode driving circuit for driving corresponding electrodes of said color liquid crystal display based on said compensated red video [red] signal, said compensated

green video signal and said compensated blue video [blue] signal.

13. (Amended) A driving circuit for a color liquid crystal display comprising:  
a first gamma compensating circuit for applying a gamma compensation only to a red video [red] signal, said gamma compensation including a first gamma compensation of voluntarily giving a luminance characteristic of a reproduced image for an input image luminance and a second gamma compensation of compensating said red video [red] signal so as to be suitable [to] only for a red transmittance characteristic for an applied voltage in said color liquid crystal display and for outputting only a compensated red video [red] signal;

a second gamma compensating circuit for applying a gamma compensation only to a green video [green] signal, said gamma compensation including a first gamma compensation of voluntarily giving a luminance characteristic of a reproduced image for an input image luminance and a second gamma compensation of compensating said green video [green] signal so as to be suitable [to] only for a green transmittance characteristic for an applied voltage of said color liquid crystal display and for outputting only a compensated green video [green] signal;

a third gamma compensating circuit for applying a gamma compensation only to a blue video [blue] signal, said gamma compensation including a first gamma compensation of voluntarily giving a luminance characteristic of a reproduced image for an input image luminance and a second gamma compensation of compensating said blue video [blue] signal so as to be suitable [to] only for a blue transmittance characteristic for an applied voltage of said color liquid crystal display and for outputting only a compensated blue

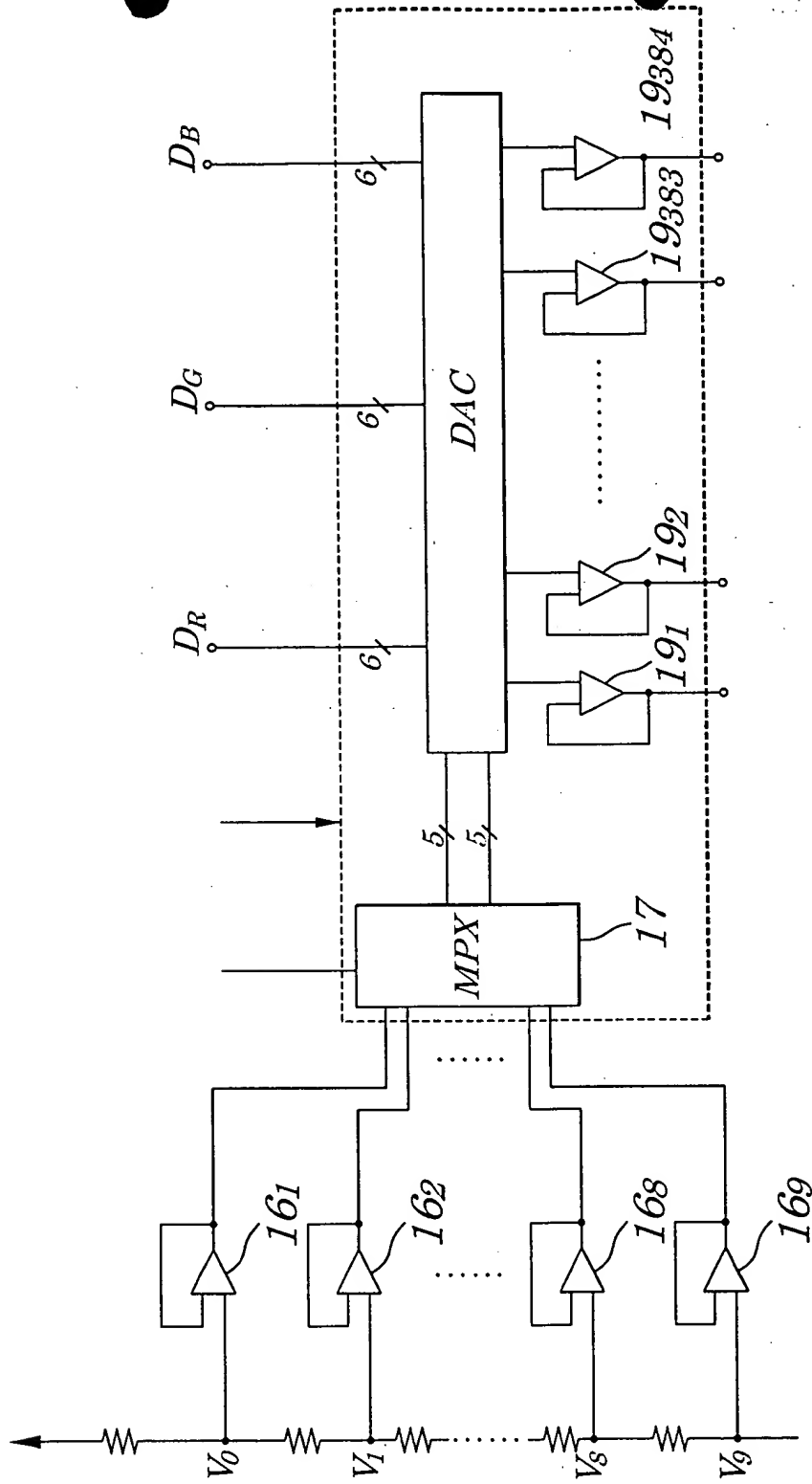
video [blue] signal;

a reference voltage generating circuit for supplying respectively independently generated reference voltages to said first gamma compensating circuit, said second gamma compensating circuit and said third gamma compensating circuit; and

a data electrode driving circuit for driving corresponding electrodes in said color liquid crystal display based on said compensated red video [red] signal, said compensated green video [green] signal and said compensated blue video [blue] signal.



FIG.21 (PRIOR ART)



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